

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 19.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011998**Date Inspected:** 11-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2330**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Michael Johnson**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** N/A**Summary of Items Observed:**

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and met with QAI inspector Rick Bettencourt to discuss the work details in regards to the Orthotropic Box Girders (OBG) identified as E1 and E2 prior to his departure at the completion of the dayshift. This QAI observed the following items:

- A). The Complete Joint Penetration (CJP) welding of the 12mm x 38mm back-up bar splices
- B). The Magnetic Particle Testing (MPT) of the back grinding of the "B" side prior to welding.
- C). The Visual Testing (VT) and Ultrasonic Testing (UT) of the back-up bar splices

The QA inspector periodically observed the Shielded Metal Arc Welding (SMAW) performed by American Bridge/Fluor (AB/F) welding personnel Jordan Hazelar, ID-2135, utilizing the Welding Procedure Specification (WPS) identified as ABF-WPS-D15-1070-R1. The QAI also observed AB/F Quality Control (QC) inspector Michael Johnson perform the in process weld inspection and the final inspection at the completion of the welding and prior to the UT inspection. Mr. Johnson verified the welding parameters utilizing the above mentioned WPS. The UT inspection of the splices was performed by Steve McConnell utilizing a Krautkramer USM 35. At the conclusion of the testing no rejectable discontinuities were noted by Mr. McConnell. The QA inspector noted that the approved and latest revised WPS was posted at the appropriate welding area. The welding parameters, preheat and interpass temperatures were verified utilizing a calibrated Fluke 337 clamp meter for the electrical welding parameters and Tempilstik temperature indicators for preheat and interpass temperatures. The filler metal and shielding flux utilized during the welding were also verified. The welding and the visual examinations, monitoring of the welding and UT inspection performed by the QC inspector and the QC technician were verified by the QAI and at the conclusion of the verification process the work performed by AB/F personnel appeared to

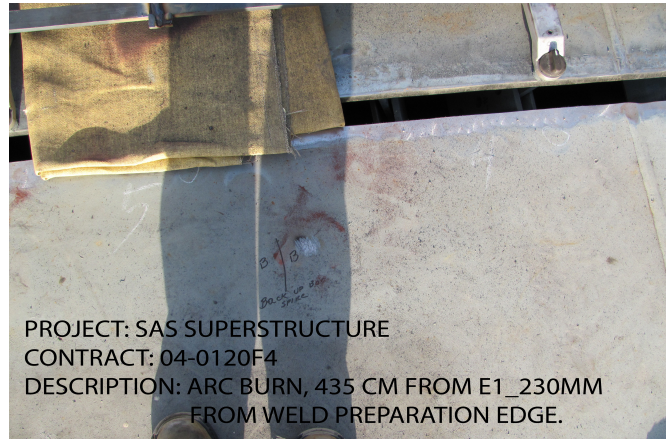
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comply with the contract documents. The welding, inspection and testing performed on this shift was completed.

Also, see UT report TL-6027 for QAI verification test results.

See digital photographs below regarding the work performed on this date.



Summary of Conversations:

Mr. Johnson informed the QAI that an arc burn was produced on the deck of the E1 OBG. This occurred prior to the arrival of the QAI at the work location. According to Mr. Johnson the arc burn was removed by grinding and MPT was performed and no indications were noted by the MPT technician. Upon the QAI's review of the area it appeared that no welding was required. The QAI utilized a Bridgecam gage to verify if a reduction of the base metal area existed after the grinding process. No reduction of the base material was observed.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By: Reyes,Danny

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer
